



PRICE- EARNING (P/E) RATIO AS A VALUE INVESTING TOOL

Dr. Pramod Kumar Pandey

Associate Professor, National Institute of Financial Management, Faridabad, Haryana, India.

ABSTRACT

Price Earnings (P/E) Ratio is the most significant Ratio in Share Market. It tells about how much the Investor are ready to pay for per Rupee Earnings of the Company. When P/E Ratio of a Company reduces, it signifies the fear in the minds of Investors regarding the downfall in the growth potential of the Company, while on the other hand when P/E Ratio of a Company increases, it signifies the greed and confidence regarding the Company's future prospects. Thus, P/E Ratio of a company is based on future expected earnings and growth prospects as perceived by Investors regarding the Company and also on speculative factors. The Author in this paper has discussed about the P/E Ratio, its computation and types and how the P/E Ratio may help the Investors in taking their investment decisions in the Share Market.

KEY WORDS: EPS, MPS, Behavioural, TTM, EBITDA.

I. OBJECTIVES OF THE STUDY

1. To study the nature and types of P/E Ratio commonly used for valuations of shares.
2. To develop a model for computing forward P/E Ratio so as to enable the investors in proper valuation of shares.

II. RESEARCH METHODOLOGY

Data is basically collected from secondary sources like annual reports of companies. To analyze the data both Financial and Statistical tools have applied. Ten years financial statements of Aurobindo Pharma and Cipla have been taken into consideration for the study.

III. LITERATURE REVIEW

- a. Shiller, Robert J studied in 2003 and came with a conclusion that Fundamental value of the stock is hard to measure. If speculative bubbles last a long time, then even this fundamental relation may not be observed except in very long sample periods.
- b. In another study conducted by Dr. Pushpa Bhatt and Sumangala JK in 2012, came with a conclusion that EPS impacts the market value of an equity share in the Indian context. Further EPS can explain on an average about 45% of variation in market value of equity.
- c. Further, in 2013 K. Hemadivya and Dr V. Rama Devi conducted a study on relationship between Market price & Earnings per share. They concluded that them the market price is not significantly affected by changes in EPS with reference to TCS. There are different factors affecting the market price of a share.
- d. On the other side, a study was conducted by Mohammad Salman Sarwar in 2013 on study on effect of dividend policy on shareholders wealth. He came out with the conclusion that Dividend per share, earnings per share, lagged market price ratio and lagged price earnings ratio has a significant positive relationship with shareholder's wealth.
- e. Md. Rashidul Islam, Tahsan Rahman Khan, Tonmoy Toufic Choudhury and Ashique Mahmood Adnan conducted a study on How Earning per Share (EPS) effects Share Price and Firm Value in 2014. It came out with the conclusion that in developed countries the relation between MPS and EPS is direct and positive.
- f. Again, Menike M. G. P. D. & U. S. Prabath studied the Impact of Accounting Variables on Stock Price in Colombo Stock Exchange, Sri Lanka in 2014. Their analysis revealed that a significant and positive impact of accounting variables on the stock price. Compared to the results of the developed market and developing market EPS showed less impact to the price in the CSE. Further DPS and BVPS showed significant impact to the share price. However DPS showed the most sensitive variables with the stock price in the CSE.
- g. Further E.Geetha and Ti. M. Swaminathan conducted study in 2015 on the factors influencing stock price of Automobile and Information Technology Industries stocks in India. They examined about the influence of book value, earnings per share and price earnings ratio towards the market price of the share and as per them, it shows a significant effect. However, dividend per

share has no impact either positively or negatively.

- h. Further, Taimur Sharif, Harsh Purohit & Rekha Pillai studied about Analysis of Factors Affecting Share Prices of Bahrain Stock Exchange in 2015. They found a significant negative relationship was found between dividend yield and MPS.

IV. THE CONCEPT OF P/E RATIO.

P/E Ratio shows how much investors are ready to pay for per rupee earnings of the company. In other words, it signifies the payback period of current market price of share through earnings generated by the Company. Thus, if P/E Ratio is 5, it signifies that the Company will take five years to equalize Market Price with earnings generated by the Company. A higher P/E Ratio shows over confidence and a lower P/E ratio shows under confidence regarding the growth prospects of the Company. A new company introduces into market with lower P/E Ratio, thereafter P/E Ratio fluctuates based on demand and supply for shares of the company.

V. COMPONENTS OF P/E RATIO

There are two broad components of P/E Ratio, one is Earnings per share and the other is Market price per share.

- 1) **Earnings per Share:** Earnings per share show net earnings of a company available to equity shareholders per share of their holdings in the company. It is assumed to be the yardstick for measuring and comparing Company's earnings capacity for its Equity shareholders. Thus, from investor's point of view it is material information which guides and directs their investment decisions. Earnings per share is one of the factors that affect the Market price of share. Further, EPS can explain on an average about 45% of variation in market value of equity.¹ However, Earnings per share as a measure of financial performance suffers from many limitations, such as :
 - It is computed based on historical earnings which may or may not prevail in future
 - The adoption of different accounting policies may make earning per share different
 - It is largely affected by Debt- equity mix in the capital structure of the business enterprise and
 - It fails to reflect the operating income generating capacity of a Business Enterprise

Earnings per share may be of different types as follows:

- a) **Based on actual Reporting by Companies²**
- i) **Basic Earnings per share:** Basic Earnings per share means net profit or loss for the period divided by the weighted average number of equity shares outstanding during the period.
- ii) **Diluted Earnings per share:** Diluted Earnings per share means net profit or loss for the period after adjustment of dilutive potential equity shares divided by adjusted weighted average number of shares outstanding during the period for the effects of all dilutive potential equity shares. Diluted EPS are normally less than the Basic EPS.

b) **Based on projections of Financial Practitioners**

i) **Trailing Earnings per share:** Trailing EPS also known as Trailing Twelve Months (TTM) is the EPS which is based on the actual numbers of immediate preceding twelve months. Since in India, Companies are required to report their results quarterly, here Trailing EPS will imply net profit or loss for all the four quarters taken together divided by number of shares outstanding during the period. So this is historical in nature.

ii) **Current Earnings per share:** Current EPS relies on some actual numbers and some projections for a particular financial year only. For example, if company has declared results for three quarters in a financial year, this will take into account net profit or loss for all the three quarters taken together on actual basis plus net profit or loss on expected basis for one quarter divided by number of shares outstanding during the period.

iii) **Forward Earnings per share:** Forward Earnings per share is based on complete projections of net profit or loss for all the four upcoming quarters taken together divided by number of shares outstanding during the period.

iv) **Rolling Earnings per share:** For computing Rolling Earnings per share, the net profit or loss for two immediately preceding quarters and two upcoming quarters are taken into account. Thus, it includes results of two quarters on actual basis and results of two quarters on estimated basis.

2) **Market price per Share:** Market price per share shows the willingness to pay by Investors for per share of the Company. Economics defines willingness to pay as "Context Sensitive Construct", i.e. if context changes, willingness to pay may change. For example, we pay higher charges for the same cold drink in a Restaurant as compared to a local retail shop. So Market price per share has two broader components;

a) Expected future earnings and growth

b) Speculative Factors

VI. TYPES OF P/E RATIO

Companies are not required to report their P/E Ratio as part of Financial Statements. It is only Earnings per share which the Companies are required to report as part of their Financial Statements. P/E Ratio is required to be computed. P/E Ratio may take various forms for analysis purposes such as:

a) **Trailing P/E Ratio:** This ratio uses reported earnings of latest financial year so this is historical in nature.

b) **Forward P/E Ratio:** This ratio is based on expected earnings of the future period.

NIFTY OR SENSEX uses reported earnings of immediately preceding last four quarters for computing P/E Ratio. So P/E Ratio immediately after results of any quarter show the behaviour of the investors based on past earnings, while any fluctuation in MPS after result of one quarter till the date of declaration of results of next quarter show the behaviour of investors based on predicted earnings of the next quarter. So for analysis purposes the P/E Ratio should be computed immediately after the result of any quarter. It is more realistic and more authentic. Further, P/E Ratio is based on EPS which may be inflated due to non-operating earnings, others non-cash adjustments and also through higher financial leverage due to deductibility of interest for tax purposes, so P/E Ratio based on Earnings before interest, tax, depreciation and amortisation (EBITDA margin) will be a good indicator of performance for evaluating the efficiency in running the business. The P/E Ratio based on EBITDA margin may be computed as follows:

$$\text{P/E Ratio} = \frac{\text{MPS}}{\frac{\text{EBITDA} - \text{Other Income}}{\text{Existing number of Equity shares} + \text{Debt/MPS}}}$$

VII. THE DESIRABLE RANGE OF P/E RATIO

Higher P/E ratio as compared to any standard index, say NIFTY or SENSEX reflects that company is overvalued as compared to the Market and vice-versa. P/E ratio is historical, however forward P/E may be a good tool for investment purposes. 1/P/E ratio shows earning yield of the shares. Thus, if P/E ratio of a company is 5, implies that people are theoretically demanding 20% return on the market prices of share. Risk free return today in India is around 8% and thus, any P/E Ratio over 12% is not justified on rational grounds because if P/E ratio is more than 12 say 13, the expected earning yield on 13 = (1/13) or 7.6%, which is less than 8%. Again P/E ratio below 5 say 4 is not justifiable because it implies that investors are demanding 25% return on their investment. Since risk free return being 8%, risk premium demanded by the investors is (25-8) = 17%, which is too high. Thus, the range of P/E Ratio should be in between 5% to 12% for better returns.

VIII. THE REASONS BEHIND INCREASE OR DECREASE IN P/E RATIO

P/E Ratio may increase when the investors perceive further rise in market price of share beyond earnings per share. Further, Market price per share may increase

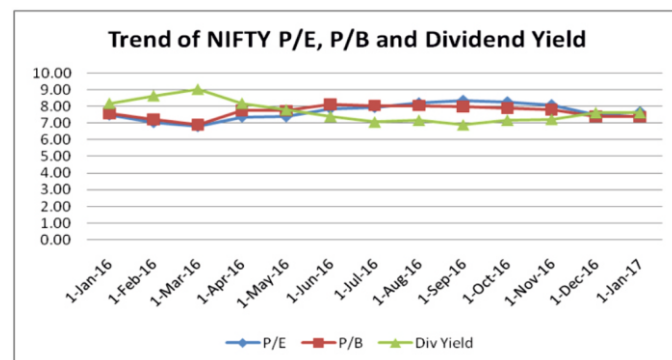
due to fundamental or behavioural factors.

In a developed country, EPS has more direct relation.³ However, in a developing economy like ours, Stock Market is more guided by Sensations than Fundamentals. Changes in EPS may not always lead to increase in P/E Ratio and further decrease in EPS may not necessarily result in reduction of P/E Ratio. In fact, changes in EPS may exhibit different probabilities of changes in P/E Ratio.

P/E Ratio is guided by expectations of future market price and further, people value gains and losses differently.⁴ The instinct of making gain increases P/E Ratio while possibility of making loss decreases P/E Ratio.

XI. DATA ANALYSIS**Table I: Trend of Nifty P/E, P/B and Dividend in Common Size**

Date	P/E	P/B	Div Yield
1-Jan-16	7.49	7.61	8.19
1-Feb-16	7.03	7.22	8.64
1-Mar-16	6.79	6.91	9.03
1-Apr-16	7.37	7.77	8.19
2-May-16	7.39	7.75	7.79
1-Jun-16	7.87	8.13	7.40
1-Jul-16	7.95	8.06	7.06
1-Aug-16	8.21	8.06	7.17
1-Sep-16	8.37	7.99	6.89
3-Oct-16	8.27	7.89	7.17
1-Nov-16	8.10	7.80	7.23
1-Dec-16	7.49	7.42	7.62
2-Jan-17	7.68	7.39	7.62
TOTAL	100.00	100.00	100.00

Chart A: Trend of Nifty P/E, P/B and Dividend Yield

The Correlation between Nifty P/E and Nifty Dividend Yield is -0.95. This implies that dividend yield is negatively correlated to Market price per share. The Correlation between Nifty P/E and Nifty Price to Book Value is + 0.82. This implies that there is significant positive Correlation between Nifty P/E and Nifty Price to Book Value.

A CASE STUDY OF TWO SELECTED COMPANIES OF PHARMA SECTOR**Table: II. Computation of Trailing P/E Ratio of Aurobindo Pharma**

Quarter Ended	EPS	Trailing EPS based on Results of four previous Quarters	MPS one day after Results	Trailing P/E Ratio
6/30/2014	13.5			
9/30/2014	13.44			
12/31/2014	13.52			
3/31/2015	11.55	52.01	756.4	14.54
6/30/2015	6.97	45.48	736.3	16.19
9/30/2015	5.82	37.86	856.65	22.63
12/31/2015	7.97	32.31	691.25	21.39
3/31/2016	6.97	27.73	785.3	28.32
6/30/2016	6.68	27.44	787.8	28.71
9/30/2016	7.16	28.78	733.9	25.50

Table: III. Computation of Trailing P/E Ratio of CIPLA

Quarter Ended	EPS	Trailing EPS based on Results of four previous Quarters	MPS one day after Results	Trailing P/E Ratio
6/30/2014	4.14			
9/30/2014	4.18			
12/31/2014	3.72			
3/31/2015	2.66	14.7	739.6	50.31
6/30/2015	8.65	19.21	703.15	36.60
9/30/2015	6.63	21.66	658.15	30.39
12/31/2015	3.31	21.25	540.85	25.45
3/31/2016	0.52	19.11	469.8	24.58
6/30/2016	3.47	13.93	515.95	37.04
9/30/2016	4.1	11.4	563.7	49.45

Chart B : Trend of Trailing P/E Ratio of Aurobindo Pharma, Cipla and Nifty Pharma

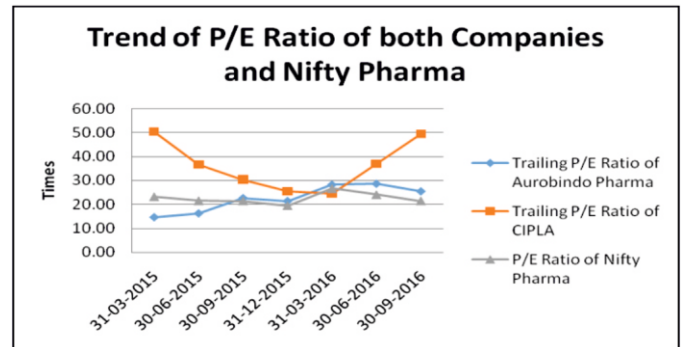


Table IV: Computation of Forward P/E Ratio of Aurobindo Pharma

Quarter Ended	EPS	Weighted Average EPS based on Results of four previous Quarters	MPS one day after Results	Weighted Average MPS based on Results of four previous Quarters	Forward P/E (Weighted Average Quarterly EPS*4/Weighted Average Quarterly MPS)	Actual P/E
3/31/2015	11.55		756.4			14.54
6/30/2015	6.97		736.3			16.19
9/30/2015	5.82		856.65			22.63
12/31/2015	7.97	7.483	691.25	756.395	25.27	21.39
3/31/2016	6.97	7.04	785.3	766.455	27.22	28.32
6/30/2016	6.68	6.939	787.8	774.625	27.91	28.71
9/30/2016	7.16	7.059	733.9	756.085	26.78	25.50

X. FINDINGS AND CONCLUSIONS

P/E Ratio is guided by expectations. Earnings per share may be one of the indicators that guide the Market price of shares. However, besides the Earnings per share there are factors both fundamental and behavioural factors that dictates the Market price per share and accordingly the P/E Ratio. P/E Ratio is a confidence parameter for the shares of the Company. A higher P/E Ratio shows higher greed. Thus, a Company with a very high P/E Ratio does not automatically indicate that its shares are worth buying. In fact its shares may be overvalued if the P/E Ratio crosses the threshold limit. For better returns, a Company having lower P/E Ratio with sound fundamentals should be selected.

XI. REFERENCES

1. Ashwin S. and Kalyanshetti Aishwarya, Behavioral Finance with Reference to Student Investors, Paridnya - The MIBM Research Journal, Vol-2, Issue-1, September 2014, PP: 40-49
2. Bhatt Dr. Pushpa and JK Sumangala, Impact of Earnings per share on Market Value of an equity share; An Empirical study in Indian Capital Market, Journal of Finance, Accounting and Management, 3(2), 1-14, July 2012, PP: 1-14
3. Geetha E. and Swaminathan Ti. M., A study on the factors influencing stock price A Comparative study of Automobile and Information Technology Industries stocks in India, International Journal of Current Research and Academic Review, Volume 3 Number 3 (March-2015), PP: 97-109
4. Hemadivya K. and Devi Dr V Rama, a study on relationship between market price & earnings per share with reference to selected companies, International Journal of Marketing, Financial Services & Management Research, Vol.2, No. 9, September (2013), PP: 126-133
5. Islam Md. Rashidul, Khan Tahsan Rahman, Choudhury Tonmoy Toufic and Adnan Ashique Mahmood, How Earning Per Share (EPS) Affects on Share Price and Firm Value, European Journal of Business and Management, Vol.6, No.17, 2014, PP: 97-108
6. M. G. P. D Menike. & Prabath U. S., The Impact of Accounting Variables on Stock Price: Evidence from the Colombo Stock Exchange, Sri Lanka, International Journal of Business and Management, Vol. 9, No. 5; 2014, PP: 125-137
7. Nair Dr. V. Raman and Antony Anu, Evolutions and Challenges of Behavioral Finance, International Journal of Science and Research (IJSR), Volume 4 Issue 3, March 2015, PP: 1055-1059
8. Robert J Shiller, From Efficient Markets Theory to Behavioural Finance, Journal of Economic Perspectives, Volume-17, Number-1, Winter-2003, PP: 83-104.
9. Shah Kavita, Study of Behavioural Finance with Reference to Investor Behaviour, International Journal of Application or Innovation in Engineering & Management (IJAIEEM), Volume 3, Issue 9, September 2014, PP: 170-173
10. Sharif Taimur, Purohi Harsh t & Pillai Rekha, Analysis of Factors Affecting Share Prices: The Case of Bahrain Stock Exchange, International Journal of Economics and Finance, Vol. 7, No. 3; 2015, PP: 207-216
11. Annual Reports of Aurobindo Pharma and Cipla
12. www.nseindia.com